THE VETERINARY RECORD

A Weekly Journal for the Profession.

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The Police and Inspectors.

Mr. Upton sends us a letter asking if a Superintendent of Police has power to declare a place free from sheep-scab without consulting a veterinary surgeon.

Section 35 of the Diseases of Animals Act 1894 says—"Every local authority shall appoint so many inspectors and other officers as the local authority think necessary . . . and may delegate to any of them such authorities and discretion as to the local authority seem fit. (2) Every local authority shall keep appointed at all times at least one veterinary inspector, etc."

Section 59 states that "inspector of a local authority" means a person appointed to be an inspector for the purposes of this act and that "veterinary inspector" means an inspector being a M.R.C.V.S. or any veterinary practitioner qualified as approved by the Board of Agriculture.

It is clear therefore that a local authority may appoint the Superintendent of Police as their "inspector" and that it is entirely at the discretion of the local authority whether his actions shall be guided by the assistance of a "veterinary inspector." The Superintendent of Police if appointed may do what he likes so that he contravenes no section of the Act or order of the Board. He may diagnose disease himself, declare a place free, or declare it infected. When he makes a mistake he is, like other folk, open to an action by the injured party.

"Grunting."

The correspondence sent us by Mr. Howse is well worth consideration. Probably we shall not be able to add much to a solution of the problem, but it would be of assistance to every practitioner if some opinions could be obtained. The difference of opinion in the case stated is one likely to arise any day, and it is desirable that we should tend to unanimity of opinion when the facts are agreed. Here we have a horse sold with a warranty of "sound in wind." Two veterinary surgeons agreed that he is not a "roarer" or a "whistler." It is also not in dispute that he "grunts." With these facts before them, one opinion is that the horse is "unsound in wind," the other that he is "sound in wind." Mr. Howse argues that "grunting" is not a sound emitted from a healthy horse, and that grunters usually became roarers. With this we agree, but the word "usually" introduces a difficulty by admitting that horses may sometimes "grunt" and yet never "roar." That there is a very distinct pathological relation between grunting and roaring we suppose will be admitted, but a horse may grunt for other reasons than laryngeal defect, and perhaps grunting is a symptom of more than one morbid condition. If so is the morbid condition one affecting the "wind?" In pleurisy a horse grunts, and after pneumonia a grunt may be elicited for months. Such conditions would certainly be defects of wind and render a horse unsound. Still we have a positive question to answer—may a horse grunt and be free from respiratory disease? This is the question we should be glad to hear discussed, for upon it depends the answer to the practical question—is a "grunter" unsound in wind?

When a practitioner examines a horse under circumstances permitting a thorough test he may do himself justice by telling his client that the horse is not a "roarer" but he grunts, and he may give his opinion about that performance. When we have to examine without a gallop, as in auction yards, we test as far as we can by threatening with a stick, and few of us would then care to advise purchase if a "grunt" were detected. Suppose we detect "grunting" in a horse described as "a good hunter," is it wise to trust to the trial after purchase, which allows the animal to be returned if a roarer but does not allow a return for grunting? In such a case, if the horse be purchased, and a gallop showed that the grunting was not associated with roaring the horse would not be returnable under existing interpretations, but very few men would go so far as to say the grunting was "of little importance," because experience agrees with Mr. Howse—that very many grunters end in being roarers. Very few men would buy a young horse that grunted, even if he made no other abnormal noise, except perhaps for harness purposes. But all this brings us no nearer a solution, because there are some horses that never go roarers but which "grunt" all their lives. Is such a grunt a symptom of an unsoundness of wind—for clearly there are other unsoundnesses of wind than "roaring" or "broken-wind."

"Covering."

The Council of the R.C.V.S. at their last meeting declined to accept a motion which said that "covering" was an offence against the Veterinary Surgeons Act. It also declined to accept another motion which attempted to define what covering is. This does not mean that the Council has no objection to "covering" or that it is unwilling to acknowledge it as an offence. Probably every member of Council allows that there is such an offence and that it should be treated by removing the name of the offender from the Register. The failure of our representatives to frame a bye-law was due simply to inability to so word a motion as not to be unfair to anyone. What we want now is a properly worded definition, and any member who can solve the conundrum will be a benefactor to his profession. Please try and define "covering" without including pupils or "improvers" or unqualified assistants!

CASES AND ARTICLES.

"GRUNTING."

Mr. Harry Howse, of Lincoln, desires to draw attention to a question which has been discussed before but which is still unsettled. He writes—

"A hunter was bought at Tattersall's on June 10th last, warranted 'sound in wind and eyes.' On his arrival at Lincoln I examined him on these points and found he grunted when galloped and also 'against the stick.' I gave a certificate stating he was a grunter and therefore unsound in wind.

On being returned to Messrs. Tattersall they had the horse's wind examined by two M.R.C.V.S., to one of whom I wrote. I enclose copy of our correspondence.

My client wrote to Tattersall's, who plainly stated that they take the unbiassed opinion of two well known members of the profession and abide by their decision. They also say it is a question to be settled by the profession themselves. The question therefore to be agreed on is, 'Do you consider a horse—being an involuntary grunter—but neither a whistler or roarer is sound in wind?' If space and opportunity are available I know of no channel better than *The Record* through which to obtain a verdict to guide all interested.—Yours faithfully,

HARRY HOWSE.

[COPY.]

15th June, 1895.

DEAR SIR,

I have to-day seen copy of a certificate expressing your opinion of a horse's wind submitted to you for examination on the 13th inst. The examination was for wind only. You say, "In my opinion the said horse is sound in wind."

May I be permitted to ask—in all sincerity for acquiring information from a high authority—whether when you examined this horse he either grunted at the stick or when being ridden? Also if a horse that is an involuntary grunter under the above conditions is considered by you to be *sound* in wind? Of course I mean that the grunting is entirely unaccompanied with whistling or roaring—as was the case with this horse.

I am a stranger to you, but I may explain that I have been in practice here at Lincoln from May 1856, and examinations form a considerable part of my practice. The point is an important one for it is the practice in Lincolnshire, Leicestershire, Derbyshire, and Yorkshire to reject a "grunter" as unsound. Grunting is noticed as being neither roaring or whistling, but is included in his category of unsoundness by Oliphant in his "Law of Horses, etc."

It is with a view of preventing confusion and distrust amongst employers that the opinion of recognised authorities should be known on the subject, and you are undoubtedly one who is looked up to as such by the veterinary profession. I therefore venture to hope that you will kindly reply to the foregoing questions.

I must admit that I adhere to the opinion that a horse sound in his wind would not involuntarily grunt either against the wall, when ridden, or when jumped. If I err scores of other veterinary surgeons also err. Therefore, the point being very important an opinion ought to be agreed on and accepted throughout the profession.—Yours faithfully,

HENRY HOWSE.

[REPLY.]

June 18th, 1895.

DEAR SIR,

In reply to your letter I beg to state that in my opinion grunting when unassociated with whistling or roaring is of little importance.

In testing wind the horse should be galloped or lunged. I have no faith in testing by punching or threatening with a stick because many roarers and whistlers do not grunt; and many grunters neither roar nor whistle, and sometimes a horse will grunt one day and not another.

[COPY.]

June 19th, 1895.

DEAR SIR,

I am in receipt of yours of yesterday's date for which I beg to tender you many thanks, although it does not quite give me the information I am in search of. It is clear enough that grunting can and does exist independently of roaring and whistling. That fact has been generally accepted for at least forty years to my own knowledge, and was specially taught by Professor Spooner to his classes in 1854-5, and who agreed with you that punching or threatening was no reliable test for *roaring* or *whistling*. But it is a test for *grunting*, and if an examiner omitted to test for grunting in this part of England he would be liable to an action at law.

It is with the view of avoiding entirely such experience that the point ought to be definitely settled one way or other, and not left to individual opinions which by their disagreement will some day entangle an examining practitioner into considerable cost of both time and money. Although grunting does not appear to interfere with the working capabilities of the animal yet it usually is progressive, and in my experience, once a grunter always a grunter, and usually sooner or later a whistler or roarer also. Again grunting and roaring or whistling frequently occur together but—so far as I know—never in connexion with "broken wind" either with cart horses or any other kind of horse, and the former combination so frequently occurs that they are frequently accepted as having some affinity for each other, and cause a more extended and severe examination for the presence of either of the latter two. Grunting then must be normal or abnormal, and if sound horses do not grunt when being ridden, jumped, or threatened the inference is in favour of its being an unsoundness—anyway until the matter is definitely settled I should describe such an animal as not sound because it so differs from a sound animal. I should like the profession to agree upon and decide the point, and with that view shall seek publicity.—I am sir, yours faithfully,

HENRY HOWSE.

PURPURA HÆMORRHAGICA.

By W. Ascott, M.R.C.V.S.

We are indebted to Mr. J. A. W. Dollar for translating and publishing in *The Veterinary Record* of May 26th, 1894, an article by Schaumkell drawing attention to this method which had been first suggested by Professor Dieckerhoff, illustrating the method by describing the treatment of a case *in extenso*. A solution is directed to be prepared consisting of iodine 1 part, potassium iodide 5 parts and water 100 parts. In ordinary cases, *i.e.* in those where only unimportant petechiæ in the mucous membranes are observed, and where the legs are not greatly swollen, ʒiij. to ʒix. of the solution are recommended to be slowly injected twice daily into the trachea at about the upper part of the middle third of the neck. In severe cases ʒxviij may be injected twice daily with impunity. As a rule the progress of the disease is arrested on the 2nd or 3rd day.

Messrs. Tedbar Hopkin, Joseph Forgham, and our President (Mr. Bloye), have since published their experiences of the treatment, and I think have certainly proved its great value. Almost simultaneously with the appearance of our President's contribution a case presented itself and afforded me an opportunity of trying the new treatment, but as it was almost *in articulo mortis* before I was called in and therefore anything but a fair trial I have not hitherto recorded it. Briefly the case was a broken-winded cart horse, nine years old, which had recovered from an attack of influenza so far as to be considered able to do a little light work. On February 24th and 25th both hind legs were noticed to be swollen, on the 26th and 27th the lips and eyelids began to swell, but the horse not being of any great value not much attention was given to him beyond resting in a loose box. On the 28th, however, the symptoms became so alarming my advice was sought. I found in addition to the symptoms already mentioned, a dark sanguineous discharge from both nostrils, large petechial markings on the visible mucous membranes, tongue swollen and dark coloured. Temp. 105-4/5, pulse 96, respiration 48 with considerable dyspnœa, altogether a typical case of Purpura. Although I had little or no hope of success I immediately commenced the new treatment, and injected ʒxviij of the iodine solution into the trachea, using for the purpose an ordinary intra-tracheal syringe, which by the way, like Mr. Bloye, I did not find improved by the corrosive action of the iodine. The injection had such a rapid and marked effect on the dyspnœa I was encouraged to persevere with the treatment, supplementing it by administering quinine and iron twice daily and carefully attending to the various details of nursing. On the 2nd day the temp. dropped to 104 1/5, pulse to 84, resp. to 44, and milk, eggs, and gruel were freely partaken of. On the 3rd day the discharge from the nostrils was lessened in quantity and improved in appearance, temp. 103 2/5, pulse 76, resp. 40, and I began to entertain hopes of recovery. On the 4th day, however, much to my disappointment and rather to my surprise, iodine being considered to be the correct remedy for the complication, an acute attack of polyuria supervened, the patient became rapidly worse and succumbed the following day.

The post-mortem examination revealed the usual appearances of purpura, the subcutaneous tissues of the swollen parts were filled with a black red exudate, the serous membranes were studded with petechiæ, the respiratory mucous membranes stained a blackish green, the bronchi containing some dark coloured exudate, the spleen and kidneys were congested, the liver was considerably swollen, friable, and of a peculiar bright sea green colour. I should like to mention before leaving the subject that both the owner and myself were particularly struck with the almost startling rapidity with which the injections acted on the dyspnœa, and so far from causing any inconvenience the patient seemed actually to be soothed and almost lulled to sleep within a few minutes.

The foregoing formed the concluding portion of the section of Mr. Ascott's paper headed "New Methods of Treatment," read before the Western Counties V.M.A. on April 11th, which appeared in our issue of June 15th (vol. VII., p. 678-80) but by an oversight Mr. Ascott omitted to forward this with the other portions.

TOXIC SYMPTOMS OF COCAINE IN A DOG.

By Walter C. Prudames, (Student), Royal Veterinary College, London.

The subject was a fox terrier, about six months old, in poor condition. It was brought to the Free Clinique on the 11th ult. The history was that it had been fighting and received some injury to its nose.

On examination it was found to have fractured the premaxillary bone, and three of the incisor teeth were loose. On account of the extreme tenderness it was decided to apply cocaine as a local anæsthetic, in order to ascertain the exact extent of the damage.

For this purpose the parts were painted with an aqueous solution of the hydrochlorate (strength gr. x to ʒiss.)

In five minutes the dog showed slight symptoms of cocaine poisoning, and in ten minutes these were definitely developed. The respiration noticeably increased. The ears were thrown back, pupils of eyes considerably dilated. The dog continuously snapping, tongue being alternately retracted and protruded from the mouth. Constant licking of the lips, and moving the head from side to side. The animal at no time appeared entirely unconscious, and did not lose its eyesight. The cocaine had had a perfect local anæsthetic effect, as there was no sensitiveness of the injured parts when touched. This lasted for at least fifteen minutes. The dog was immediately kept as quiet as possible and amyl. nitrate held to its nostrils at three various intervals. The effect of this was to appreciably diminish the spasms, and cause a decided appearance of relief. After the first applications of the amyl. nitrate, the animal was placed on the ground, when he moved in a spasmodic manner, took but slight notice when called, and showed a marked tendency to seek the dark by hiding in corners. After using the amyl for the third time

the symptoms became diminished sufficiently for the owners to be able to take him away.

The hyperæsthesia was noticed by the owner for nearly an hour and a-half after arriving home. On carefully measuring the remaining solution it was found that only ♏x. had been used, representing grs. 1 1-9th of hydrochlorate of cocaine.

The case when seen the next day was progressing favourably and showed no ill effects of its previous day's experience. Can only surmise that the freshness of the wound, together with the extent of its surface for absorption, accounted for this minimum dose acting as above stated.

On referring to the notes on the subject by Prof. Hobday, in the Journal of Comparative Pathology, he there states that after observing its effect on nearly 100 cases, he considered grs. ij. to be a perfectly safe amount to use on an average sized fox terrier (14 to 16lbs. in weight). But in none of these cases in the dog was it applied to a fresh wound of any size. I may add that there were no signs whatever of the dog suffering from any form of heart or respiratory disease, as I have carefully examined him on two occasions for this.

SYMPTOMS PRODUCED BY AN OVERDOSE OF COCAINE.

By H. Edie, student, R.V.C.

The patient, an eight-year-old donkey, was brought to the Free Clinique on June 18th, being lame. Upon examination this was found to be of an obscure nature and suspecting the foot ♏50 of a 4 p/c aqueous sol. of hydrochlorate of cocaine were injected on each side of the fetlock joint immediately over the plantar nerves; this, however, did not produce anæsthesia and, as it had been prepared some 14 days previously, I determined to try a fresh solution. Grs. ii. hydrochlor. of cocaine was then dissolved in ♏40 of water and injected as before; this took effect almost immediately, and in about three minutes there was complete anæsthesia in all parts of the foot below the seat of injection and for some distance above it. There was an interval of about 15 minutes between the two injections. The second seemed also to increase the action of the preceeding grs. iv. as in a very short time the animal showed symptoms of having received an overdose of the drug. The pupil of the eye became somewhat dilated, though not to its fullest extent, he was constantly scraping with the affected foot, and though naturally a very quiet animal showed extreme sensitiveness; the hyperæsthesia being so great that he manifested irritation at the touch of a fly, and it was difficult to approach him. When a noise was made in front of him he ran backwards, when allowed to stand undisturbed there were involuntary clonic spasms of many of the voluntary muscles at intervals of about 30 seconds, this being especially well marked in those of the abdomen and off-hind leg. In the case of the hind leg such spasms would have made it impossible to perform any delicate operation in that region.

These symptoms continued for about half-an-hour when they gradually passed off and he left the College. On enquiry I found it did not affect him afterwards in the least, as on arriving home he ate his food and appeared alright. This I think shows the value of this most useful and important drug, and at the same time the great care necessary in the administration, as the animal in question only received grs. vi., grs. iv. of which had apparently little or no effect, at least locally.

I should have mentioned that as an aid to diagnosis its effect was in every way what was desired, as the gait of the animal improved very much, enabling the lameness to be localised.

EFFECTS OF LIGHTNING.

By J. McGavin, M.R.C.V.S.

A great thunderstorm occurred here on June 26th and lasted from two o'clock till half-past four. Rain and hail fell in torrents, and in many places the water was three feet deep. After the storm abated a great many animals were found dead, including:—

Two horses	at the	Rolver
Two ,,	,,	Glenhafren
One cow	,,	Moore Farm
One ,,	,,	Green Farm
Two cattle	,,	Llwynrhwideth
One ,,	,,	Hem
Six sheep	,,	Dallas
Two ,,	,,	Walcot
Three ,,	,,	Whym
One ,,	,,	Courthouse.

As some of them were insured, a veterinary certificate was required, thus it fell to my lot to investigate two different groups—one of cattle and one of sheep. I now give the result of my enquiry.

The post-mortem examination was held 18 hours after death on six sheep, belonging to Mr. Morris, Dallas. They were all lying in a row, under a tree in the centre of a hedge. The sheep next the tree had a livid appearance in the flank, some of them were opposthotonic. Two had their heads turned towards the shoulder, all were tympanitic in the abdomen, and white froth was protruding out of their nostrils. There were no marks externally. The internal organs were all healthy, and the blood was nearly all fluid, only a few small clots in some of the blood vessels. There was a small clot in the right ventricle of the heart, the left ventricle was empty. The lining membrane of the trachea was congested and filled with froth which extended down to the bronchial tubes; lungs crepitated.

A post-mortem examination was held 42 hours after death on two cattle belonging to Mr. Jones, Llwynrhwideth. I found them lying as it were in each other's arms in the centre of a field; abdomens very much swollen; *rigor mortis* very marked and bodies opposthotonic; froth had been coming out of their nostrils the day previous, but it was gone by the time I examined them. One had a singed appearance of the hair on the legs, neck, head, and several parts of the body, and a corresponding dark mark

underneath the skin, but there was very little of this on the second one. Decomposition had set in and on drawing the hand over several parts of the body and legs it crepitated like a case of black-leg.

The internal organs were all healthy, there were ecchymoses on the rumen of both cases where the spleen is attached. The heart was flabby and soft, a dark clot in the right auricle and ventricle, a small clot in left auricle, left ventricle empty, the blood was all fluid. A small quantity of froth in the trachea, but more in the bronchial tubes; kidneys of a slatish colour and soft.

CASTRATION STANDING.

This way of operating which has come much into vogue lately as being "novel and expeditious" is one which I think ought to receive a little serious attention from our profession. Practitioners who like myself served a pupilage under men who were most successful in their castrations by the old system will, I think, be slow to adopt this so-called very "novel and expeditious?" way. Still I think the time has now come when practitioners who do castrate should practice this method, so that they themselves can operate when clients specially wish their colts not to be thrown. I would urge this on every practitioner, as I have learnt from experience, how very dangerous it is to call in a *professional brother* to assist at any operation.

I must admit that when this way of operating was first brought to my attention I considered it a fad which would soon die out, but when my *expert operator* went to my clients by himself next day to remove the clams and *forgot* a bottle of lotion with his name and address on it, I came to the conclusion I was very dull in my perception of the operation's far-reaching effects, and that it would pay me to be a standing operator. I now wanted to know the great clam dressing secret and was offered it at £5 which I agreed to pay, but alas, my expert operator changed his mind and made a very shuffling apology for not allowing me to waste my money. An old College chum, who is a great advocate of the standing method, came to the rescue and was only too pleased to tell me anything he knew, although he said there was really nothing in it, and now I am a full blown and I may say successful standing operator.

I think there is little doubt but that the operation by clams is safest, and the one most adopted by standing operators, so that there is the great objection of going many miles to remove the clams. Some operators instruct the attendant to remove the clams in 24 hours, and certainly there seems no danger, but this can only be done when a very simple clam is used. Nearly all the colts I have operated upon or seen operated upon by the caustic clam have shown great uneasiness sometimes for many hours, caused no doubt by the irritation of the clam (foreign body) and if we call ourselves humane I am sure we must object to this. No doubt there are a great many points in favour of the standing operation, but I think it will be a time yet before the old system dies out, even although the advertiser of the new system in the papers be an F.R.C.V.S. If we do adopt this method of operating, surely we should do so as quietly and carefully as possible, not after the fashion of some men who from their actions and the way they get themselves up are more like prize fighters than veterinary surgeons. Let there be no more mystery to a professional brother such as keeping all instruments and clams concealed, none of that pretending it is *such a secret* and you are not a humbug. If the great secret has cost you so very much don't repeat the statement before any veterinary surgeon, for he can only think you an exaggerator or an idiot.

C. P.

VETERINARY SOCIETIES.

THE CENTRAL VETERINARY MEDICAL SOCIETY.

The last monthly meeting of the session was held at the Royal College of Veterinary Surgeons, 10, Red Lion Square, Bloomsbury, on Thursday evening, the 4th inst., Mr. S. Villar, the president, occupying the chair. The other Fellows present were: Messrs. A. L. Butters, J. K. Bruce, Vet. Captain E. R. C. Butler, A.V.D., Vet.-Captain L. Blenkinsop, A.V.D., A. H. Clapp, Matthew Clarke, Professor F. Hobday, J. Sutcliffe Hurndall, Professor J. Macqueen, F. C. Mahon (hon. sec.), A. Prudames, W. Roots, J. Rowe (hon. treas.), H. G. Rogers, F. Samson, H. Singleton, S. Slocock, F. W. Wragg, J. Tooth, W. E. Taylor, and as visitors, Messrs. H. Edie, W. C. Prudames, W. Reekie, and E. L. Stroud.

On the motion of Mr. A. L. Butters, seconded by Mr. J. S. Hurndall, the minutes of the preceding meeting were taken as read and confirmed.

The Hon. Sec. (Mr. F. C. Mahon) reported that Prof. Axe, Mr. J. Roalfe Cox, and Mr. H. Edgar, had written expressing regret at their inability to attend that meeting.

"PELVIC FRACTURES."

Address by Mr. W. Hunting, F.R.C.V.S.

Mr. President and gentlemen, there are two occasions on which I come before veterinary societies. One is when I think I have got something novel to tell them, and the other is when I want some information from them, and this is an occasion when I come here to try to obtain information. I do so because some of my friends tell me that they have had no difficulty in diagnosing and tracing pelvic fractures. Now I have experienced difficulty in this matter, and I want to know how it is, what are the symptoms by which these fractures are so easily diagnosed. As, however, I could not attend here simply to ask that question, I propose to make a few general observations upon these fractures.

First as to their frequency. In London my experience is that pelvic fractures have increased very largely in number since asphalte pavement came into vogue. Prior to the use of asphalte pavements, most of the pelvic fractures which came under my notice occurred in stables paved with slippery Dutch tiles.

Now as to the conditions under which they occur:—Has conformation anything to do with them? I am inclined to think that the high hipped horse is no more liable to pelvic fracture than any other shaped horse. My

experience is that young horses and old ones, five or under, and aged horses, are most liable to the fracture of these bones. Apparently the kind of work a horse has to perform has something to do with the possibility of a fracture. In some kinds of work a horse is more apt to be struck or injured, or to fall in a certain way than in other kinds of work. In coal mines it is no uncommon thing to find fractures of the ischium among the horses down the pits caused by the running forward of waggons laden with coal on to the quarters of the animals. I think fracture of the pelvis is a rare fracture under other circumstances. Fracture of the symphysis pubis is a fracture I have never seen. I do not know whether it is right or not, but somewhere I remember reading—probably in *The Veterinarian*—that these fractures are much more common in mares than in geldings. Probably your experience will decide that point.

Now as to the positions of the fractures. The accepted idea is that the external angle of the ilium is most frequently injured; that the common pelvic fracture is merely the knocking off of the external angle. That is not my experience, I should say you have not often fracture of the external angle unless you include those small taps a horse occasionally gets by knocking against a wall, or doorway, or against a sharp edge in a stable, In my opinion a much more common fracture is fracture directly through the flat part of the ilium, a fracture immediately below the sacral articulation. The next common fracture is that of the shaft of the ilium. Then come fractures of the pubis and ischium between the obturator foramen and the acetabulum. Apparently the position of the fracture depends upon what part of the bone comes in contact with the blow. One can readily understand that in the case of a fall, where the external angle of the ilium comes to the ground first, how the neck of the bone is broken. The fractures of the pubis and ischium are cases which arise when the horse falls upon the head of the femur, and it is the impact on the bones above through the femur that causes these fractures. Oftener both pubis and ischium are broken than one of them.

As to the symptoms; in diagnosing these fractures, of course lameness—great lameness—is one. That immediately suggests to us that we have got a fractured pelvis to deal with. If a horse comes in from work so lame that it cannot put its foot on the ground, a fractured pelvis occurs to one. But you may have a fractured pelvis apparently without any lameness at all. At any rate a horse can go on working and nobody will notice that it is lame until the fracture separates. So it will not do to rely entirely upon the character of lameness as indicative of fracture of the pelvis. A symptom often visible is a quivering of the muscles over the injured quarter, and that quivering of the muscles takes place in all the fractures anterior to the Ischium. As to the movement of the limb in these cases, somewhere I saw a case related where it was said that the horse in moving had advanced his leg farther forward than usual. That is not my experience of these fractures. To my mind a very useful symptom is the difficulty with which a horse gets his leg forward at all, and in some cases that have recovered where we have had fracture of the neck of the ilium, part of the treatment consisted in getting a man to carry the leg forward with a rope round the fetlock whenever you wanted to move the horse. You can certainly have fracture without any crepitus, and you can very easily mistake for crepitus, some movement of the head of the femur. I cannot account for it—it may have been carelessness on my part—but I think I have diagnosed crepitus once or twice when it did not exist. Concerning position of the limb, I do not think there is any diagnostic position of the limb in case of fracture of the pelvis. In fact we have much the same position as in bad sandcrack in the toe. Then, at first sight, it seems that one ought to be able to diagnose pretty well all the fractures of pelvic bones by rectal examination; but that is not my experience. If you have to examine a pelvic fracture some weeks after it has occurred, it is much more easily felt per rectum than it is at the time it is done. When you get these bony deposits (referring to exhibit) then in some parts you can feel it—feel the bony growth anywhere along the rim of the pelvis. I do not think examination per rectum enables you to diagnose or follow the fracture anywhere behind the acetabulum.

When you have diagnosed a case of fracture of the pelvic bone the next question the owner wants answering is whether it is worth keeping and treating the horse or not. Although I am inclined to think that perhaps every fracture except that affecting the acetabulum is curable, or rather I should say, may recover, yet I believe as a rule (although it would not be safe to make a very strict hard and fast rule) having diagnosed a case of fracture of the pelvis, you should pole-axe the animal at once. I think that in the end that course would be true economy to the owner of the horse. Of course in the treatment you can practically do nothing. There are two things you want to be always prepared for, one is displacement of fracture, which is apparently simple, when the horse lies down. And after you have kept him a month or some length of time it is a little annoying to allow him to lie down and then find that he is unable to rise again. At any rate for five or six weeks after a fracture of the pelvis has occurred, I think if you are going to treat him at all, it is right to keep him in slings.

Then as to prognosis, to say how a case will end is also difficult, and if you have a fracture of the neck of the ilium, at any rate until the sharp edges of the bone can be felt or some exudation takes place to strengthen the opinion formed it is an extremely awkward thing after giving an opinion that the horse is going on well, to find some day that the animal dies from hæmorrhage owing to the splintered bone having penetrated the blood vessels.

As to deformity: I think a really bad deformity always results from a fracture of the Ilium, and the other fractures seldom lead to any great flattening of the quarter. The ordinary case of down-hip supposed to be due to this fracture of the external angle of the ilium is prevented in very much the same way by the fracture crossing the plate of the bone. In a case I had some little time ago, I was very much disgusted with an erroneous diagnosis I arrived at. Perhaps it was my own fault for not having examined the vagina. This mare had fallen and her hind legs slipped apart as she fell. The mare got home—a distance of a couple of miles—with great difficulty. She was down and could not get up when I saw her. When I took hold of the injured leg I could raise it nearly perpendicular. Clearly something was broken, and I arrived hastily at the conclusion that it was a case of fracture of the head of the femur, which to my mind accounted for the ease with which this injured leg could be moved. The animal was killed and the post mortem examination showed the Femur was perfectly sound. What had happened was the occurrence of a fracture to the pubis from the Symphysis Pubis right up to the Acetabulum. It was not a broken Femur that accounted for the extra movement but the fracture of the Pubis. That that case might have been diagnosed with a little care was shewn by the enormous amount of swelling and injury to the tissues which could have been felt perfectly through the vagina. I think, perhaps, these few remarks will be sufficient to introduce the subject, and enable some of you to assist me in my further diagnosis of these cases. (Applause.)

The Discussion.

Mr. F. W. Wragg:—I feel in a somewhat unfortunate position. I feel somehow like a barrister without a brief.

I have only during the last few minutes heard what my friend, Mr. Hunting has had to say on the subject of pelvic fracture; and as my ideas do not flow very fast I am afraid that I shall make a very poor show of opening this discussion. I should commence by thanking Mr. Hunting for his kindness in furnishing this society with a subject for discussion. Our friend is always ready to come forward, not only at the meeting of this society but at the gathering of any society which pays him the compliment of asking him to assist them in adding to the success of their meetings. Mr. Hunting began by mentioning the difficulty of diagnosing, and in that I quite agree with him. He also related a case which he unfortunately did not diagnose rightly. Well, he is not the only man in the profession who has failed to do that. I myself, had a case last year where the Pelvis was fractured and I diagnosed it as a case of Azoturia. I think I even did worse than Mr. Hunting. It was so much like the latter that I was perfectly convinced in my own mind it was such a case, although the prevailing symptom of coffee-coloured urine was absent. My assistant did not agree with me. He put it down as injury. When I asked him to look for the injury he failed to diagnose it any more than I did. Mr. Hunting went on to say that since asphalte has been used as a road paving material pelvic fractures have been more frequent than formerly, I would add that wood pavement too, may be regarded as a cause of these fractures. Considering the way in which horses fall about on all sorts of paving in London pelvic fractures are rather rare. At all events I have not found them at all numerous in my practice. Whether we have had more since asphalte paving has been in vogue or not, I can hardly say. My recollection does not carry me far enough. Mr. Hunting said something about the conformation of the pelvis, and added that he thought that had very little to do with the cause of the fractures. There I cannot agree with him. I think the conformation of the pelvis has some connection with the fracture. You will find at the knackers, if you notice, that the pelvis differs very much in conformation in different horses. I think the pelvis that is rather more upright or, if I may thus explain myself, does not slope quite so much, is the one that we see more frequently fractured than others; and to confirm that view, Mr. Hunting said that fracture of the symphyses of the pelvis was more common in mares than in geldings. Then he went on to speak of fractures of the ilium, and I understood him to say that the more frequent injuries were crushes at the extremities. I think nobody will dispute that. We do get some cases—I do not admit that we get many—where three or four inches are knocked off, and I do not think that, as a rule, that is of so much moment as fractures in other parts. Mr. Hunting also mentioned down-hip, and I think I might—if I am not out of order—raise the question whether a horse with a down hip going free from lameness, should be passed as sound. I remember that some years ago I rejected a hunter for down-hip although he went free from lameness. I think now if a horse went free from lameness although he had a down-hip I should pass him as sound, but call attention to the deformity. There was a horse called Royal Hampton that ran in the Derby about fourth to Melton in 1885. I do not know much about racing but I happened to see this horse walk about the paddock at Epsom. It struck me that he went lame. I mentioned this to a brother practitioner who was with me, and who told me that the animal had met with an accident, had had a fall, and yet it ran fourth in the Derby and won the City and Suburban the next year. That down-hip did not interfere with the horse's usefulness. (Prof. Macqueen: He was a roarer.) That may have made him a roarer, but I have never heard of that before. (Laughter.) Mr. Hunting spoke about symptoms. My idea is that the characteristic symptom of a fractured pelvis is that a horse goes sideways in the same manner in which a dog does when he is walked along. Then he spoke about rectal examination. Personally, perhaps owing to my want of manipulative power, I have never had much idea of what I could feel when my hand was in the rectum. In the case I mentioned to you, where he believed there was a fracture, my assistant examined the rectum a good many times. I did not myself because I had no idea there was a fracture. As to the position of the fracture, my experience is that those fractures behind the hip joint are cases in which you may just as well, as Mr. Hunting says, have the animal knocked on the head at once. But in cases of fracture of the ilium I think the horse may occasionally—in a fair proportion of such cases—become useful afterwards. I do not know that I have anything more to say. Mr. Hunting was rather brief in his remarks, and that must be my excuse for my own brevity. (Applause.)

(To be continued)

EXTRACTS AND NOTES.

IMMUNITY AGAINST FOOT-AND-MOUTH DISEASE THROUGH POTASSIUM IODIDE.

(Clinica Veterinaria Nr. ii. ex 1895.)

Professor Pick, of the Prague University, in treating syphilitic children, influenced the milk of two of his cows by administering potassium iodide in 12 gramme per diem doses. One of the cows had been thus treated for eight weeks, the other for ten weeks. The two cows belonged to a herd of 70. Foot-and-mouth disease broke out and spread gently. To hasten the spread of the disease the proprietor transferred saliva of infected animals to all the herd including the two iodide consuming cows. All the cows became moderately infected, five more seriously; the two iodide consuming cows remained immune. One is not in the position to say what value this single observation has and how long the immunity may last, and if potassium iodide has any curative influence in foot-and-mouth disease. At all events it is an important fact and highly desirable to bear in mind and also to endeavour to ascertain the effective dose in case of foot-and-mouth disease.—

Oesterr. Monatsschrift für Thierheilkunde.

HENRY REYNOLDS, M.R.C.V.S.

Hermanniestec, Böhmen.

Dr. Ruffer.

We regret to hear that Dr. Ruffer, the Director of the British Institute of Preventive Medicine, whose researches in regard to the antitoxin treatment of diphtheria are so well known, has himself contracted a severe attack of the disease in the course of his investigations. Immediately on the nature of his complaint being ascertained he was treated by antitoxic serum, and, we are glad to learn, with most satisfactory results, as he is now making very good progress towards recovery.—*British Medical Journal.*

HUMAN AND VETERINARY MEDICINE.

It is a matter of no small interest to observe how, from the earliest times, observation of the ailments of animals and the knowledge gained from the more or less experimental treatment of their diseases has influenced the progress of medicine proper as applied to man. Malm, in a graduation thesis, discourses upon the relationship which has existed between veterinary and human medicine from the days of antiquity to the present time. The first historical references to the healing art in ancient times have to do with veterinary medicine. There is a tradition of a Greek shepherd, Melampus, who is said to have lived centuries before the siege of Troy, that on account of his knowledge of diseases of animals he was called in to see a King's daughter, whom he cured of a maniacal condition by means of the Helleborus albus. The result, according to the legend, showed the correctness of Melampus's deductions as to the similarity between the diseases of man and animals, for he had found this plant useful for apparently similar conditions in his sheep. In course of time Æsculapius appears, and for some centuries after him the veterinary art seems to have been neglected, until it was revived again by Hippocrates and Aristotle, both of whom derived their knowledge of human medicine from the study of animals.

After the commencement of the Christian era and up to the fifth century veterinary medicine was very flourishing, and put human medicine completely into the shade. To this result, the very opposite of what might have been expected, several causes contributed. Knowledge of veterinary medicine was improved partly owing to the appearance of such men as Columella (40 A.D.), who was the first to place veterinary medicine upon a scientific basis, and at a later period Apsyrtus (320 A.D.), who wrote a description of nearly every known disease in animals. Another cause of the advance of veterinary art at this time was the great military luxury prevalent in the Greco Roman Empire, and especially at the Byzantine court, where, for instance, the office of chief master of the horse was one of the greatest honours conferred. Human medicine, on the other hand, had begun to the neglected even before the Christian era, and, until Cæsar gave them civic rights, the physicians were either slaves or freedmen. After the time of Christ it sank still lower, and Roman writers speak with great contempt of the practice of medicine. This inferiority continued until the twelfth century, and was probably caused in part by the influence of powerful ecclesiastical bodies which so often showed themselves hostile to scientific research and freedom of thought, but it was no doubt also largely due to the military spirit then so prevalent, and to the growth of the feudal system, which gave small consideration to weakly men but thought everything of horses, which were the special appanage of the knightly classes, to whom, in fact, they gave their proud preeminence.

This long period did not produce any scientific writings of value. Human medicine during this time appears to have departed from the road of true research, and to have neglected the teachings of experience; it was completely dominated by mysticism and superstition.

With the establishment of the universities, however, (twelfth to thirteenth century), human medicine made rapid progress. In the beginning of the thirteenth century Luzzi, in Bologna, began to make *post mortem* examinations of human bodies, but it was not until the beginning of the sixteenth century that the real study of human and animal anatomy began. During this century Ruini wrote a book on the anatomy of the horse. It is interesting to note that it was this work which was the origin of the Italian opinion that the honour of having discovered the circulation of the blood should be given to Ruini. It is true, indeed, that this author understood the pulmonary circulation, but he had erroneous views about the function of the veins. It can scarcely be denied that Harvey knew Ruini's work, but most probably in this case, as with most human discoveries, the work was prepared by many, the discovery made by one. This work of Ruini's remained for long the only important contribution to veterinary science. In fact, the scale had turned. The knowledge of human medicine was gradually settling itself on a firmer basis, while by the time of the appearance of the great cattle plague, which was imported from Russia, and raged throughout Europe in the beginning of the seventeenth century, the veterinary art had sunk almost entirely into the hands of the farriers. There was thus no one to meet the emergency, and the various Governments were obliged to turn to the practitioners of human medicine for help. This severe warning was the chief cause of the establishment of veterinary schools, the first of which was founded by a French advocate, Bourgelat, in 1762 in Lyons. But what was taught in these schools for a long time was chiefly human medicine applied to animals. Several countries possessed no such schools, but the subject was included in their courses by a few members of the medical faculty at the universities; and thus arose a praiseworthy effort to create a true comparative pathology. The realisation of this effort only became possible later by the advancement of experimental pathology, of which bacteriology has recently become a prominent department.

It is interesting to note the varying progress of the two great branches of medicine. Sometimes the veterinary, sometimes the human, has taken the lead, but whatever has been learned in the one has been of service to the other. While physiology shows the general similarity of the action of protoplasm, the basis of living matter, whether in animals or in man, we may fairly believe that those interferences with life processes which we call disease are analogous in both, and we can readily recognise the honourable part taken by the veterinary art in the gradual evolution of the science of medicine which is now being applied for the equal benefit both of animals and man.—*British Medical Journal.*

PROFESSOR HUXLEY.

We much regret to announce the death of the Right Honourable Thomas Henry Huxley, which took place at his residence, Hodeslea, Staveley Road, Eastbourne, on Saturday, June 29th. In the beginning of March Mr. Huxley had an attack of influenza. Bronchitis supervened, and lung and kidney complaints soon manifested themselves. There was also cardiac affection of long standing.

Thomas Henry Huxley was born on May 4, 1825, at which was then the village of Ealing, in the semi-public school of which his father was one of the masters. This school he attended for a few years, but his educational progress was largely due to his own private efforts. At an early period he became familiar enough with German to plunge into the scientific literature of that language, and he seems to have got some help from a brother-in-law who was a medical man. In 1842 he entered the medical school attached to Charing Cross Hospital, where at that time Mr. Wharton Jones, distinguished alike as an oculist and physiologist, was lecturing on physiology. In 1845 he passed the first M.B. examination at the University of London, taking honours in anatomy and physiology. Even before this he had given evidence that his mind was occupied with something more than the technical details of the medical profession, for, while yet a student at Charing Cross Hospital, he had sent a brief

notice to the *Medical Times and Gazette* of that layer in the rootsheath of hair which has since borne the name of Huxley's Layer. After devoting himself for a short time to the practice of his profession among the poor of London, he, in 1846, joined the medical service of the Royal Navy and was sent to Haslar Hospital. Here he did not remain long, but like so many other men who have made their mark in biological science, set out on a voyage round the world.

Through the influence of the distinguished naturalist Sir John Richardson, who had accompanied Franklin in his early Arctic expeditions, young Huxley was given the post of assistant-surgeon on her Majesty's ship Rattlesnake, then about to proceed on a surveying voyage to the southern seas. Huxley took ample advantage of his opportunities to study the fauna of the seas which he traversed, with the results known to all naturalists. The communications which he sent home during the voyage made his name well-known to the scientific world even before his return. Huxley in vain endeavoured to obtain the publication by the Government of a part of the work done during the voyage, and it was not until 1859 that his great work, entitled "Oceanic Hydrozoa, a description of the Calycophoridæ and Physophoridæ observed during the voyage of Her Majesty's ship "Rattlesnake," was given to the world.

The reputation which he had already attained at the early age of 26 is evident from the fact that in the year after his return, 1851, he was elected a Fellow of the Royal Society, and in 1852 was awarded one of the society's Royal medals. In 1853 he left the Naval Service, and the following year, on the removal of Edward Forbes from the Royal School of Mines to the chair of Natural History in Edinburgh, Huxley was appointed Professor of Natural History, including palæontology, in that institution, a post which he held until his retirement at the age of 60—an age at which he used to declare every scientific man ought to commit the happy despatch. In the same year, 1854, he was appointed Fullerian Professor of Physiology to the Royal Institution and Examiner in Physiology and Comparative Anatomy to the University of London. Other posts and honours crowded thick upon him. From 1863 to 1869 he held the post of Hunterian Professor at the Royal College of Surgeons. In 1862 he was President of the Biological Section at the Cambridge meeting of the British Association, and eight years later held the Presidency of the Association at the Liverpool meeting. In 1869 and 1870 he was president of the Geological and Ethnological Societies. As might be expected, Professor Huxley held strong and well-defined views on the subject of education. He was a man who at all times had a keen sense of public duty, and it was this which induced him to seek election on the first London School Board in 1870. Ill-health compelled him to retire from that post in 1872, but during his period of service as chairman of the Education Committee he did much to mould the scheme of education adopted in the Board schools.

He was elected secretary of the Royal Society in 1873, and ten years later was called to the highest honorary position which an English scientific man can fill, the late presidency of that society. During the absence of the Professor Sir Wyville Thomson with the "Challenger" Expedition, Huxley, in 1875 and 1876, took his place as Professor of Natural History in the University of Edinburgh. From 1881 to 1885 he acted as Inspector of Salmon Fisheries. But this and all his other official posts he resigned in 1885, shortly after which he removed to Eastbourne.

Huxley had a power of popular exposition almost unequaled. He could make plain, even to an ordinary working-man audience, the bearings of the most recondite researches of the zoologist and botanist; witness his famous Norwich lecture "On a Piece of Chalk," and the memorable sermon which he gave on a Sunday evening a quarter of a century ago in the midst of shocked Edinburgh. Even by those who maintain that influences have been at work in the development of man additional to those which have been common to him and the lower animals, it may be said that Huxley's conclusions as to the intimate relations between humanity and the higher apes have been generally accepted. It was in the same "popular" form that Huxley gave to the world many other theories and disquisitions which have had much to do with moulding educated opinion during the last quarter of a century.

In an equally "popular" form Huxley dealt with matters of profound human interest and of the widest bearings. Much of what he has written, for example, on the relation of science to religion, and especially to Christianity, has appeared in the form of magazine articles. In these writings, as in his more purely scientific work, while he does not spare what he believes to be erroneous views and misinterpretation of facts, his candour and open-mindedness are ever evident. He never hesitates to expose the sophistries, misconceptions, and unfair assumptions of his own side, even at the risk of weakening his own position.

It is interesting here to recall the fact that probably the first review of the "Origin of Species" was written by Professor Huxley for *The Times*, under what circumstances will be found narrated in "The Life of Charles Darwin." One notable instance of his championship occurred at the Oxford meeting of the British Association in June, 1860. Bishop Wilberforce defended the then orthodox views and "ridiculed Darwin badly and Huxley savagely." He so far forgot himself as to ask Huxley whether he was related by his grandfather's or grandmother's side to an ape. One who was present states that "Huxley replied to the scientific argument of his opponent with force and eloquence, and to the personal allusion with the self-restraint that gave dignity to his crushing rejoinder." The exciting incident was a triumph for the new-born doctrine. A contrast to this stormy meeting was that of the same Association in Oxford 34 years later (August, 1894), when again the Darwinian theory was, if not exactly attacked, at least somewhat keenly criticized by one of the sanest of our politicians, who is also entitled to respect for his practical acquaintance with science, Lord Salisbury. Not less dignified were the words used by Professor Huxley on this occasion than those just referred to. His words may be regarded as a declaration of his scientific faith at the end of his long and busy career.

As evolution and the Darwinian attempt to explain it have been confounded, so Huxley's agnosticism has often been rashly identified with materialism, positivism, and even atheism. At the conclusion of his famous sermon on the Physical Basis of Life he repudiated the first with vehemence. He certainly did not believe that matter was the only thing in the universe, The positivism of Comte he almost despised, and nothing could be more unjust to a man of so absolutely sceptical a mind as Huxley than to charge him with anything so rashly positive as atheism. Agnostic is the only epithet that can adequately describe his attitude to what lies beyond the cognizance of our five senses. He is gone, but his work, as well as his works, remains. The latter may to a future generation become antiquated and unreadable, but the influence of the former upon the thought of the last 35 years has been deep and wide. It must be taken into account in any attempt to estimate the forces which have been at work to mould the intellectual, moral, and social life of the century. Whatever the verdict may be as to the character of Huxley's influence, it cannot but be admitted that he exercised his great powers with a serious sense of responsibility and with an unwavering loyalty to what he conceived to be the truth.

One of Huxley's latest tasks was to superintend a complete edition of all his non-technical writings in nine volumes. It is by these, no doubt, he would wish to be judged by thinking men in the future. Reference has been made to Huxley's wonderful power of clear exposition. Apart from that, his skill in the use of our language entitles his writings to take a high rank as literature. He himself was familiar with the masterpieces of German, French, and Italian, as well as English, literature, and in this respect he stood in marked contrast to Darwin. Mr. Huxley leaves a widow and a numerous family.—*The Times.*

[The foregoing extract was held over last week to give space for report of Council meeting R.C.V.S.]

THE MINISTRY OF AGRICULTURE.

To the Editor of "The Times."

Sir,—One reason why her Majesty's late advisers lost ground in the country is that they contained among them so few business men and so many amateurs and doctrinaires. Indeed, it might be said of them, as was said of the Whigs when they took office after being out of power, with the exception of a short interval, for nearly half a century, "that they showed at every step the self-sufficiency of men of talent and the incapacity of men without experience." . . . . .

Perhaps the most glaring failure on the Ministerial front bench has been Mr. Herbert Gardner. Like the fly in Amber, the wonder is how he got there. He never showed in the last Parliament any real knowledge of agriculture, though he was fond of reminding the House that he was the representative of a purely agricultural constituency. Indeed, so often did he make this announcement, and so incongruous did it appear, coming from the lips of a well dressed exquisite less fitted to speed the plough than to sport with Amaryllis in the shade, that one came to regard him as a kind of natural curiosity—a connecting link between Bond Street and Bœotia—with an affinity to the former rather than to the latter locality. In office he has given evidence of a tractable disposition, and the House has extended to him the good humoured tolerance one would show to an intelligent child playing at being a man. Mr. Gardner's redeeming quality has been a becoming consciousness of incapacity. He kept silence in the agricultural discussions raised on the address and subsequently; and when forced to given the House the benefit of the views, as on the second reading of Mr. Lambert's Tenure of Land Bill, his feeble handling of the subject emboldened the leaders of the Conservative party to give to the measure the uncompromising opposition which many of us thought to be so injudicious and untimely. . . . .

I have blamed the late Government for insulting a great industry by putting a dummy at the head of the Board of Agriculture. I hope, therefore, that in filling up this important post no mistake will be made. Agriculturists have been sorely disappointed in the late Administration. Even the one measure which was paraded in the Queen's Speech as their great remedy for agricultural distress—the Light Railways Bill—was intrusted, not to the Minister for Agriculture, but to Mr. Bryce, a student, a mere man of letters, a gentleman whose knowledge of farming, if he have any, would in all probability be based on the Bucolics of Virgil or the works of Pliny and Columella What we want at the Board of Agriculture is a practical man, a man of action and progress, not one of the old-fashioned sort who will meet every attempt to improve our system of land tenure with an "uncompromising No.' I doubt myself if any very big landowner would do for the post The lord of many villages, the proud possessor of many palaces, but no home, is, as a rule, too migratory a being and too far removed socially from the farmers, the yeomen, and the general run of small country residents to be in touch with them or to acquire anything beyond a superficial knowledge of their ways their wishes, and their requirements. The great county magnate who pays flying visits to this country seat or that may exhibit with justifiable pride his model village and his home farm to his distinguished guests after they have been the round of the stables; but his personal knowledge of his estates must necessarily be slight and his acquaintance with those who get their living on them mostly of a nodding character. I do not deny, indeed, that a great landowner, little as he may know of his property, may have opportunities elsewhere, in his enjoyment of life, of picking up useful hints even on agriculture. Some knowledge of permanent pasture, for instance, may be acquired, I dare say, on Newmarbet Heath and Epsom Downs, and I suppose there are chances of studying foreign systems of land cultivation at Carlsbad and Monte Carlo. . . . . .

The Board of Agriculture if properly constituded ought to be one of the most important departments, if not the most important department, of the Government, and should be presided over, not by some wealthy aristocrat who thinks his social position gives him a claim to office, but by a business man, a man who knows the needs of agriculture and who has sufficient ability and force of character to impress his views on his colleagues and on the Legislature.

Your obedient servant,
C. W. Radcliffe Cooke.

FITZWYGRAM PRIZES.

There were nine competitors for these prizes, the written portion of the examination was held in London and Edinburgh on the 6th of June, and the *vivâ voce* on the 26th June at the Royal Horse Infirmary, Woolwich, The following is the result :—

No.	*Written*	*Vivâ Voce*	*Total Marks.*
57	655	1515	2170
60	695	1350	2045
90	645	1350	1995
81	630	1290	1920
74	868	1005	1873

Result.

1st prize £50, Mr. W. E. Ison, (No. 57), Dick Coll. Edin.
2nd „ £30, Mr. A. R. Routledge, (No. 60), „ „
3rd „ £20, Mr. J. Spreull, (No. 90), New Coll. Edin.

The examiners appointed were Vet.-Capt. Blenkinsop, and Sidney Villar, Esq. Mr. A. W. Hill, Hon. Sec.

Part I.—Anatomy.

(Time allowed, 1½ hours. Each question to be attempted.)

Question 1.—Give the attachments of the *diaphragm* of the horse and the structures passing through it.

2.—What muscles are attached to the *olecranon* of the horse? Give the nerve supply, and physiological action of each muscle.

3.—Define a *serous cavity*, and name those yon know.

4.—Describe the *circle of Willis*, and state the structures it surrounds.

Part I.—Pathology.

(Time allowed, two hours. Each question to be attempted.)

Question 1.—What do you understand by *Immunity*, and what theories have been propounded to account for this condition?

2.—What are the chief points of difference between the bacillus of *anthrax and black quarter.*

3.—Mention the most diagnostic lesions usually found at a necropsy of an animal which has died from *swine fever.* With what other diseases may *swine fever* be most readily confounded?

4.—Describe the macroscopical and microscopical appearances of a *Glander nodule* from the lung of the horse.

5.—Compare macrosscophically and microscopically the lungs from a case of *pleuro-pneumonia* contagiosa and *sporadic pneumonia* of cattle.

6.—What do you understand by Equine Influenza? What are the most frequent complications of this disease?

PHYSIOLOGY.

(Time allowed, 1½ hours.)

5.—Describe the differences in the secretion of the various *salivary glands* of the horse.

6.—Describe the mammary gland, and the differences between the composition of the milk of the cow, mare, and ass, giving, if possible, a table showing roughly the relative value of milk from each of these animals.

7.—Describe the progress of *deglutition*, giving the nervous mechanism as far as you know.

8.—What are the functions of the *iris* with reference to distinct vision? Describe briefly the relations of the *iris* to the nervous system.

NEGLECTING TO NOTIFY GLANDERS.

Thomas Astley Lane, omnibus proprietor, Main Street, was summoned, before Messrs. Brame and Leech, at the Victoria Courts on July 6th, for infringing the Glanders and Farcy Order of the Board of Agriculture.—Mr. Hiley (Town Clerk's office) prosecuted, and Mr. Arthur Smith defended.—Mr. Hiley explained the ninth paragraph of the Order provided that every person having in his possession, or having had in his possession, a horse, ass, or mule suffering from any contagious disease, should with all practicable speed give notice to a constable in the district where the horse was.—Inspector Wiltshire deposed that he visited Adam's slaughter yard on June 7 and saw a bay horse, which was in a very bad condition, and, in his opinion, suffering from glanders. Subsequently he saw defendant, who stated that the horse had been ill for some days, and could not do its work. In consequence, he sent it to be slaughtered.—Mr. Parker, veterinary surgeon, said when he saw the horse at Adam's it was suffering from glanders, and there must have been outward signs for four or five days.—By Mr. Smith: He saw defendant, who informed him that the horse had been working as a leader on one of his omnibuses. Witness ordered defendant's premises to be disinfected, and examined his other horses. He found none of the other animals suffering from the disease.—In reply to the magistrates, witness said that had defendant given notice the horse would have been slaughtered on his premises, and afterwards burned at Montague Street.—Mr. Smith, in defence, said the defendant sent the horse to be slaughtered because it was poor and unable to do its work. When he heard from Wiltshire that the animal was supposed to be suffering from glanders he instructed Mr. Tailby, veterinary surgeon, to proceed to Adam's and examine it. When Mr. Tailby went he found that the horse had been slaughtered and removed by order of the inspector. As a result, defendant was unable to produce scientific evidence in support of his opinion that the animal had not got glanders.—Defendant and two of his employés stated that they saw the horse the evening it was sent to be slaughtered, and they saw no symptoms of the disease. The animal was simply poor. Defendant was fined £3 and costs.—*The Birmingham Gazette.*

The London Parcels Delivery Co., Limited, of Rolls Buildings, Fetter Lane, E.C., were summoned by the London County Council for neglecting to give notice of the fact that they had a diseased horse in Church Street, Deptford, contrary to the Glanders or Farcy Order, 1894. Mr. Colman for the council, said the animal was killed by a slaughterer. On the carcase being seen next day by Mr. Humphrey, inspector to the L.C.C., the animal was found to have been suffering from glanders from 3 to 10 days. Mr. Humphrey said there was no cause for killing the horse except the disease. For the defence Mr. Byerley, F.R.C.V.S., said the horse was suffering from septic pneumonia, and as there was evidence that mortification was setting in he advised that it should be slaughtered. There was no indication of glanders, and this was a case in which the bacillus of glanders could only be discovered by a post-mortem examination. Sometimes the poison lurked in the system for months. Mr. Humphrey said that when he saw the horse there was every symptom of glanders. Mr. Marsham said it was clear that the company had no knowledge of the fact that the horse was glandered, and they placed the animal in the hands of a qualified man. Mr. Byerley doubtless made an error, but he could not say that the company were responsible, and dismissed the summons.

ARMY VETERINARY DEPARTMENT.

THE CHITRAL EXPEDITION.

Kanbat, 7th June.

Two cases of supposed glanders have occurred among the transport mules here, and the whole of them have been isolated pending developments. We have now had both rinderpest and foot-and-mouth disease among the cattle, and strangles among the mules, but great precautions were at once taken in every case, with the result that the spread of the diseases was immediately prevented.—*The Pioneer.* (Allahabad.)

We regret to announce the death of a very promising young officer, Veterinary-Lieutenant C. B. Freeman, who died of enteric fever on the 5th inst., while serving with the Chitral force.

This officer received the diploma of the Royal College of Veterinary Surgeons on the 29th May, 1889; was appointed to the Army Veterinary Department 10th May, 1893, and embarked for India 13th September, 1894.

Veterinary-Major B. L. Glover will take veterinary charge of the horses in the East Square, East Rear Range, Garrison Staff, and Infantry Transport, at Woolwich, vice Vety.-Lieut. W. E. Russell. Vety.-Major I. Matthews, Dublin, has been detailed to act as District Veterinary Officer for Ireland, in addition to his own duties, until a successor to the lat Vety.-Lieut.-Col. C. Phillips, has been appointed. Vety.-Major S. Duff-Gillespie, in charge of the Station Veterinary Hospital at Kirkee, has been deputed to Ahmedabad on inspection duty.

COMPULSORY NOTIFICATION.

SIR,

I was interested in the subject of your note last week, but I believe I am right in saying that the medical practitioners are not quite unanimous in their approval. Our Council will doubtless make themselves well acquainted with the advantages and disadvantages of the Act, before approving of legislation which once enacted cannot easily be undone. I see no difficulty or objection myself, but I desire not blindly to approve what I do not understand. May I ask you, or some of your readers, to let us know more of the Notification Act as it now applies to the medical profession? The Board of Agriculture suggestion is to legislate on the same lines as the Medical Act, and veterinary surgeons should see if they can avoid any faults which experience has shown to attach to the Medical Act.—Yours truly,

A CAUTIOUS MEMBER.

[We shall try to give the information desired next week.—ED.]

INFLATION FOR INTUSSUSCEPTION.

SIR,

A few days ago I had a case of intussusception of the bowels in a horse. I was mentioning the details to a medical man when he suggested that in next case I should try *inflating the bowels with air*. He said that babies were more liable to this than adults. With an ordinary india-rubber enema syringe he said that he could so much inflate the belly of the child as to make the skin glisten by the tension. The sphincter is tied around the enema, exactly how I do not know. If any of your subscribers have used this method, perhaps we may hear from them. This surgeon said this treatment was very successful.—Yours faithfully,

PROGRESS.

[This treatment might be useful in dogs when the diagnosis was correctly made. In the horse there are difficulties. An intussusception in front of the large intestines is not easily diagnosed. Inflation would not be likely to reach it, and the artificial tympany might be as fatal as the disease.—ED.].

CAN THE SUPERINTENDENT OF POLICE DECLARE A FARM FREE FROM SHEEP SCAB WITHOUT THE AID OF THE VETERINARY INSPECTOR?

SIR,

I have lately had an instance where the Superintendent of Police has declared a farm free from sheep scab himself without veterinary advice, and thinking that the case might be of interest to your readers, I am writing this letter. A neighbouring farmer of mine bought some ewes which were affected with the disease last autumn: being rather neglectful of it he allowed it to remain on the farm until the ewes had lambed, the lambs, of course nudile, taking the disease, and when I saw the sheep some few weeks before they were declared free, the hedges and fences were liberally covered with wool, some of the ewes nearly destitute of wool, and some of the lambs nearly in the same condition.

The Superintendent of Police, acting on his own authority, has declared the sheep free. Sheep from this farm are now being brought into our market, and who can wonder if the disease spreads through this district, considering that the farm has never been posted with notices to the effect that sheep were affected there. A duly qualified veterinary inspector declared the sheep affected with the disease, yet his services are dispensed with in freeing them from it.

I should like to have your opinion Mr. Editor as to whether our Superintendent has exceeded his duties, or whether as the law stands he may do as he thinks fit, ignore veterinary advice, and be the sole director of contagious diseases. If he is acting wrongly surely this case should be reported to the Board of Agriculture. In fairness to the farmers in my neighbourhood I think something should be done; knowing myself only too well how often sheep scab will break out twice and three times in a flock after the disease seems practically eradicated.—Yours truly,

GEORGE UPTON.

Priory Farm, Dartford, Kent.
July 6th, 1895.

[See editorial notes.—ED.].

DIPHTHERITIC EPIDEMIC IN CATS.

SIR,

During the past few months I have met with several cases of what I thought was a croupous or diphtheritic epidemic amongst cats in this city, the usual symptoms were a difficulty in swallowing, frequent sneezing with a nasty sticky catarrhal discharge, entire refusal of food, and consequent emaciation; the mouth and throat had a beastly odour, and in many cases was coated with a thick layer of lymph which on extraction left the mucous membrane very vascular. They were very intractable to treatment, and most of them gradually lost flesh until they died or were destroyed on account of their offensive smell and constant sneezing. Have any of your numerous readers met with similar cases?—Yours truly,

FRANK G. ASHLEY.

Broad Street, Bath,
July 10th, 1895.

VOTE FOR OURSELVES.

SIR,

Now is a favourable time for veterinary surgeons to enforce their claim on the Board of Agriculture with reference to the appointment of Major Tennant as head of the Veterinary Department. Before any veterinary surgeon promises to vote for any Parliamentary candidate either in County or Borough get him to promise that he will do all in his power to bring the matter before Parliament as soon as possible if elected, or abstain from voting for any candidate that refuses to have such enquiry made.—Yours faithfully,

J. WORSLEY, M.R.C.V.S.

Ipswich.

HORSE-SHOE MANUFACTURING.—AN INVITATION.

DEAR SIR,

Noticing that the annual meeting of the National Veterinary Association is about to be held in Birmingham on the 24th and 25th of July, and thinking that the modern process for the manufacture of horse shoes might be interesting to some of the profession, my Directors wish to offer a hearty invitation to any of the gentlemen who would care to visit their works at Walsall, and inspect the manufacture of horse shoes by machinery.

Mr. T. D. Richardson the manager will be pleased to give every information to the visitors.—Yours faithfully,

T. A. RICHARDSON, *Secretary*.

THE BRITISH AND COLONIAL HORSE SHOE AND MACHINE COMPANY, LIMITED.

Globe Iron Works,
Charles Street, Walsall.
Five minutes from Walsall Station.

COMMUNICATIONS, BOOKS AND PAPERS RECEIVED—Messrs. G. Upton, J. Penberthy, H. Reynolds, A. Millar, D. Young, J. R. Cox, J. Worsley, F. G. Ashley, W. Jackson, "Progress."